

In the claims:

1. A system which enables real-time sharing of a web page being viewed on a plurality of terminals, comprising:

5 a server provided with a means to transmit a detecting script which detects an update to the web page and an updating script which updates the web page; and a means to transmit update information which notifies an update to a web page, such information being sent from a prescribed terminal, to other terminal which is  
10 displaying the same web page as said prescribed terminal; and

terminals each provided with a receiving means to receive the detecting script and the updating script which are sent from said server; a means to cause the  
15 received detecting script to detect an update to the web page being displayed and, if any, generate update information which notifies the result of the update and to transmit the resultant update information to said server; and a means to cause the updating script to  
20 update the web page based on said received update information.

2. The real-time web sharing system as set forth in claim 1, wherein

said server comprises

a means to transmit an update detecting script  
5 which detects an update to a part provided on said web  
page, an incorporating script which incorporates this  
update detecting script into the web page, and a part  
updating script which updates a part provided on the web  
page; and

10 a means to transmit the part update information  
which notifies the update to the part provided on the  
web page, such information being sent from a prescribed  
terminal, to other terminals which are displaying the  
same web page as said prescribed terminal; and

15 said terminals each comprises

a means to receive the detecting script and the  
updating script which are transmitted from said server;

a means to cause the incorporating script to  
incorporate said update detecting script into the web  
20 page, cause said update detecting script to detect an  
update to a part on said web page, and to transmit to  
said server part update information which notifies the  
content of the update; and

a means to cause said part updating script to  
25 update the part provided on the web page based on said  
received part update information.

3. The real-time web sharing system as set forth in  
claim 2, wherein

an update to a part provided on said web page

is a scroll or resize of said web page or an  
5 update of a value in the entry form on said web page.

4. The real-time web sharing system as set forth in  
claim 2, wherein

said server comprises

a storing means to store identification  
5 information, which identifies said terminals  
individually, in association with the update information  
and part update information sent from the individual  
terminals corresponding to the identification  
information;

10 a means to cause said storing means to store said  
update information and part update information in  
association with the identification information of said  
terminals;

a means to, when a prescribed terminal logs in  
15 using said identification information, retrieve from  
said storing means the update information and part  
update information associated with the same  
identification information as said login identification  
information; and

20 a means to first transmit said retrieved update  
information and then transmit said retrieved part update  
information to said prescribed terminal.

5. The real-time web sharing system as set forth in

claim 2 or claim 4, wherein

said server comprises

5 a means to, when receiving a connection request  
which requests a connection from a prescribed terminal  
to other terminal, transmit said connection request to  
such other terminal;

10 a means to, when receiving from said other  
terminal a notification that said other terminal is  
ready to respond to the connection request, retrieve  
from said storing means the update information and part  
update information associated with the identification  
information of said prescribed terminal; and

15 a means to first transmit said retrieved update  
information and then transmit said retrieved part update  
information to said prescribed terminal.

6. The real-time web sharing system as set forth in  
one of claim 1 to claim 5, wherein

said server comprises

5 a means to transmit a pointer script which  
incorporates tags for displaying a pointer to be shared  
on the web page between the terminals and which obtains  
the movement location for the pointer, and a moving  
script which moves the pointer; and

10 a means to transmit the location information  
which notifies the movement location for the pointer on  
the web page, such information being sent from the

prescribed terminal, to other terminals which are displaying the same web page as said prescribed terminal; and

15           said terminals each comprises  
          a means to receive the pointer script and location information which are sent from said server;  
          a means to cause said pointer script to incorporate the tags for sharing the pointer into the  
20   web page, obtain the location of the pointer after movement, and transmit to said server the location information which notifies the location thus obtained;  
          and

          a means to cause said moving script to move the  
25   pointer on the web page based on said received location information.

7.       A terminal of a real-time web sharing system which enables real-time sharing of a web page via a remote server, comprising:

          a means to receive a detecting script which  
5   detects an update to the web page, an updating script which updates the web page; and update information which notifies the update to the web page, all of these scripts being sent from a server;

          a means to cause said received detecting script  
10   to detect an update to the web page being displayed and, if any, generate update information which notifies the

result of the update and to transmit the resultant update information to said server; and

15           a means to cause the updating script to update the web page based on the update information which has been received via said receiving means.

8.       The terminal of a real-time web sharing system as set forth in claim 7, wherein

          said terminal comprises

5           a means to receive an update detecting script which detects an update to a part provided on said web page, an incorporating script which incorporates this update detecting script into the web page, and a part updating script which updates a part provided on the web page, all of these scripts being sent from a server;

10          a means to cause the incorporating script to incorporate said update detecting script into the web page, cause said update detecting script to detect an update to a part on said web page, and to generate and transmit to said server part update information which  
15       notifies the content of the update; and

          a means to cause said part updating script to update the part provided on the web page based on said received part update information.

9.       The terminal of a real-time web sharing system as set forth in claim 8, wherein

an update to a part provided on said web page  
is a scroll or resize of said web page or an  
5 update of a value in the entry form on said web page.

10. The terminal of a real-time web sharing system as  
set forth in claim 8 or claim 9, wherein

said terminal comprises

a means to receive a pointer script, to be sent  
5 from said server, which incorporates tags for displaying  
a pointer to be shared on the web page between the  
terminals and which obtains the movement location for  
the pointer, a moving script which moves the pointer,  
and location information which notifies the movement  
10 location for the pointer on the web page;

a means to cause said pointer script to  
incorporate the tags for sharing the pointer into the  
web page, obtain the location information for the  
pointer after movement, and transmit to said server the  
15 location information which notifies the location thus  
obtained; and

a means to cause said moving script to move the  
pointer on the web page based on said received location  
information.

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11. A server of a system which enables sharing of a  
web page being viewed between a plurality of terminals  
in real-time, comprising:

5           a means to receive the update information which  
notifies an update to a web page and the part update  
information which notifies an update to a part provided  
on the web page, both the update information being sent  
from a prescribed terminal;

10           a storing means to store identification  
information which identifies said prescribed terminal,  
in association with said received update information and  
part update information;

15           a means to cause said storing means to store said  
identification information which identifies said  
prescribed terminal, in association with said update  
information and part update information;

20           a means to, when other terminal logs in using the  
identification information of said prescribed terminal,  
retrieve from said storing means the update information  
and part update information associated with the same  
identification information as said login identification  
information; and

25           a means to first transmit said retrieved update  
information and then transmit said retrieved part update  
information to said other terminal.

12.       The server of a real-time web sharing system as  
set forth in claim 11, wherein

          said server comprises

          a means to, when receiving a connection request



5       which requests a connection from a prescribed terminal  
to other terminal, transmit said connection request to  
such other terminal;

          a means to, when receiving from said other  
terminal a notification that said other terminal is  
10       ready to respond to the connection request, retrieve  
from said storing means the update information and part  
update information associated with the identification  
information of said prescribed terminal; and

          a means to first transmit said retrieved update  
15       information and then transmit said retrieved part update  
information to said prescribed terminal.

13.       A program, comprising realizing in each terminal  
of a real-time web sharing system which enables sharing  
of a web page via a server, comprising:

          a function which detects an update to a web page  
5       being displayed on the own terminal;

          a function which generates update information  
which notifies the result of the update to a remote  
server after detecting an update to a web page being  
displayed on the own terminal; and

10       a function which updates the web page being  
displayed on the own terminal based on the update  
information sent from said server.

14.       The program as set forth in claim 13, wherein

said program comprises

a function which incorporates into said web page  
a detecting function which detects an update to a part  
provided on a web page;

a function which, when said detecting function  
detects an update to a part provided on said web page,  
generates and transmits to said server part update  
information which notifies the content of this update;  
and

a function which updates a part provided on a web  
page on the own terminal based on the part update  
information sent from said server.

15. The program as set forth in claim 14 or claim 15,  
wherein

said program comprises

a function which incorporates tags for displaying  
a pointer to be shared on the web page between  
terminals;

a function which, when said pointer on the web  
page moves, obtains and notifies to said server the  
location information for the pointer after movement; and

a function which moves said pointer on a web page  
based on the location information notified from said  
server.

16. A method of sharing a web page in real-time

between a plurality of terminals by using existing browsers, comprising:

5           enabling sharing of a web page in real-time  
without requiring alteration of the web page in advance  
or without requiring alteration of the display or the  
content rewriting module of a browser, by linking a web  
page for sharing and a web page for control with each  
other by displaying these web pages on the screen  
10   divided into frames or in browsers in parent-child  
relationship; causing a script in the control frame to  
detect a change in the address of the shared page;  
assigning, at this timing, from the control frame to the  
sharing frame a hook function which hooks a sharing  
15   event and identification information which designates  
what will be shared; if said sharing event occurs,  
generating and notifying from a server to the browsers  
on other terminals notification information which  
notifies the event that has occurred; and invoking a  
20   function which executes the function hooked to the  
targets having the same identification information.

17.       A method of sharing in real-time a web page being  
displayed on a first terminal and a second terminal via  
a remote server, comprising the steps of:

5           said server transmitting to the first terminal a  
detecting script which detects an update to a web page  
and transmitting to said second terminal an updating

script which updates a web page;

said first terminal receiving the detecting  
script sent from said server and causing this received  
10 detecting script to detect an update to a web page;

said second terminal receiving the updating  
script sent from said server;

said first terminal, if said detecting script  
detects an update to a web page, generating and  
15 transmitting to said server update information which  
notifies the result of the update;

said server transmitting the update information  
sent from the first terminal to the second terminal; and

said second terminal causing said received  
20 updating script to update the web page based on the  
update information sent from said server.

18. The real-time web sharing method as set forth in  
claim 17, comprising the steps of:

said server transmitting to the first terminal an  
update detecting script which detects an update to a  
5 part provided on a web page and an incorporating script  
which incorporates this update detecting script into the  
web page and transmitting to the second terminal an  
updating script which updates a web page;

said first terminal receiving the detecting  
10 script and incorporating script sent from said server;

said second terminal receiving the updating

script sent from said server;

said first terminal causing said received  
incorporating script to incorporate said update  
15 detecting script into said web page;

said first terminal, if the update detecting  
script detects an update to said part provided on the  
web page, generating and transmitting to said server  
part update information which notifies the content of  
20 this update;

said server transmitting the part update  
information sent from said first terminal to the second  
terminal;

and said second terminal causing said received  
25 updating script to update the part provided on the web  
page based on the part update information which has been  
sent from said server.

19. The real-time web sharing method as set forth in  
claim 18, comprising:

using an additional third terminal; and  
having the steps of:

5 said server storing the identification  
information of said first terminal in association with  
said received update information and part update  
information;

said third terminal logging into said server  
10 using the same identification information as the

identification information of said first terminal;

said server retrieving the update information and  
part update information associated with the same  
identification information as the said login  
15 identification information;

said server first transmitting said retrieved  
update information and then transmitting said retrieved  
part update information;

20 and said third terminal first updating the web  
page and then updating the part on the web page, based  
on the update information and part update information,  
respectively, sent from said server.

20. The real-time web sharing method as set forth in  
one of claim 17 to claim 19, comprising the steps of:

5 said first terminal detecting that a Connect  
button which calls said second terminal has been  
pressed;

said first terminal, when said Connect button is  
pressed, notifying said server a connection request  
which requests a connection with said second terminal;

10 said server, when receiving the notification of  
the connection request from said first terminal,  
transmitting this notification to second terminal;

said second terminal, when receiving the  
notification of the connection request from said server,  
enabling a Respond button which responds to this

15 connection request and detecting the pressing of said  
Respond button;

said second terminal, when detecting the pressing  
of said Respond button, notifying said server that the  
terminal is ready to respond to the connection request;

20 said server, when receiving the notification from  
said second terminal that the terminal is ready to  
respond to the connection request, retrieving the update  
information and part update information associated with  
the identification information of said first terminal;

25 said server first transmitting said retrieved  
update information and then transmitting said retrieved  
part update information; and

said second terminal first updating the web page  
and then updating the part on the web page, based on the  
30 update information and part update information,  
respectively, sent from said server.

21. The real-time web sharing method as set forth in  
one of claim 17 to claim 20, comprising the steps of:

5 said server transmitting a pointer script, which  
incorporates tags for displaying a pointer to be shared  
on the web page between the terminals and which obtains  
the movement location for the pointer, and a moving  
script which moves the pointer;

said first terminal receiving the pointer script  
sent from said server;

10               said second terminal receiving the moving script  
sent from said server;

              said first terminal causing said received pointer  
script to incorporate the tags of the pointer to be  
shared between the terminals into said web page;

15               said first terminal causing said pointer script  
to obtain the movement location for said pointer and  
transmit the location information thus obtained to said  
server;

              said server forwarding the location information  
20 sent from said first terminal to said second terminal;  
and

              said second terminal causing said moving script  
to move the pointer being displayed on said web page,  
based on the location information sent from said server.